

AMENDMENTS TO THE CLAIMS:

1-4. (Canceled).

5. (Original) A method for manufacturing a semiconductor light emitting device comprising the steps of:

forming a silicon nitride film on a surface of a silicon substrate by conducting heat treatment said silicon substrate in an atmosphere containing nitrogen; and

growing on said silicon nitride film a semiconductor layer lamination to form a light emitting layer which is made of a ZnO based compound semiconductor.

6. (Original) The method of claim 5, wherein the step of forming said silicon nitride film is conducted by controlling a temperature or a time thereof so that the surface of said silicon nitride film can maintain the flat face of said silicon substrate.

7-8. (Canceled).

9. (Original) A method for growing a ZnO based compound crystal layer, wherein a ZnO based compound layer is grown epitaxially on a sapphire substrate so that a c-axis of said ZnO based compound layer may be perpendicular to a c-axis of said sapphire substrate.

10-12. (Canceled).

13. (New) The method of claim 5, wherein said atmosphere containing nitrogen is an atmosphere of a NH_3 gas plasma-excited by a high-frequency power source.

14. (New) The method of claim 5, wherein said semiconductor layer lamination has a double-hetero construction in which an active layer made of $\text{Cd}_x\text{Zn}_{1-x}\text{O}$ ($0 \leq x < 1$) is sandwiched by clad layers which are made of $\text{Mg}_y\text{Zn}_{1-y}\text{O}$ ($0 \leq y < 1$) and also which have a band gap energy larger than that of said active layer.

15. (New) The method of claim 6, wherein said controlling a temperature or a time is a higher temperature on a shorter processing time, or a lower temperature on a longer processing time, to form said silicon nitride film in a thickness of 10 nm or less.

16. (New) The method of claim 9, wherein said ZnO based compound crystal layer is grown epitaxially so that an a-axis of said ZnO based compound crystal layer corresponds to a c-axis of said sapphire substrate.

17. (New) A method of manufacturing a semiconductor light emitting device comprising the step of a growing a semiconductor layer lamination made of a ZnO based compound on a sapphire substrate so that a c-axis of said semiconductor layer lamination may be perpendicular to a c-axis of said sapphire substrate,

wherein said semiconductor layer lamination has layers laminated to form a light emitting layer, said layers having at least an n-type layer and a p-type layer.

18. (New) The method of claim 17, wherein said semiconductor layer lamination has a double-hetero construction in which an active layer made of $\text{Cd}_x\text{Zn}_{1-x}\text{O}$ ($0 \leq x < 1$) is sandwiched by clad layers which are made of $\text{Mg}_y\text{Zn}_{1-y}\text{O}$ ($0 \leq y < 1$) and also which has a band gap energy larger than that of said active layer.